BOSTON UNIVERSITY

GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

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Bibliographical Note on Volume One

This first volume of the Graduate Journal will consist of thirteen numbers, April-June, September-December, 1952, and January-June, 1953. Succeeding volumes will embrace ten numbers, September-June of the academic year.

Since the Journal is planned as a permanent record, the final issue of each volume will contain an index.

BOSTON UNIVERSITY

GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

VOLUME 1 MAY, 1953 NUMBER 12

Editorial: What is the Answer?

In recent months the public press as well as the professional journals have carried more than a normal amount of comment concerning the inability of American college graduates to use their own language. The problem is, of course, not peculiar to any one college or university — rather it seems to be common to all. One need only peruse the application letters of students seeking admission to graduate schools to discover that the grammar problem is present in our most highly rated institutions as well as in the so-called non-accredited colleges.

There can be little doubt that facility with one's native language is a prerequisite of the educated man. We are not concerned here with the niceties of grammatical construction, but rather with the tools of everyday written expression. It is not unusual to hear a major professor comment: "My name should appear on that student's thesis as co-author — I practically wrote it myself."

In view of the widespread criticism by faculty and the general public alike, we must raise the question whether graduate students who give evidence of inability in the English language should be required to take a course in English composition without graduate credit. A procedure more convenient to the graduate schools would be to condemn the undergraduate college, and let it go at that. This, I suspect, is what we do in too many cases. The problem, however, remains unsolved; and the major professor has another thesis to write.

Then, too, we are subjected to sharp criticism from business, industry, and other employers of our graduates. One businessman in the mid-west had this to say: "In business we find an appalling lack of persons with even an average vocabulary. If you can turn out one in ten students who can spell ordinary words or even use the dictionary, it will be an accomplishment."

A professor of English, reading term papers for a course called "Literature of the Renaissance," encountered a ten-page paper written by a senior in which the two key words of the entire course, "Elizabethan" and "Renaissance," were misspelled 36 times!

The above statements, while perhaps extreme and even exaggerated, are not new to any of us; each of us undoubtedly has his own favorite anecdote illustrating the extremes of the grammar problem. We laugh about it, but at the same time we are concerned. The question remains as to what the solution may be.

The faculty of Hanover College in Indiana declared war to the finish on bad grammar, and as a result drew up and adopted the following policy:

> Ability to communicate and to comprehend what is being communicated is one of the chief characteristics of an educated person. Therefore Hanover expects its graduates to spell accurately, choose their words wisely, read with reasonable speed and comprehension, and express themselves with clarity and grammatical correctness. The following policy aims toward these accomplishments.
>
> (1) Entering students who do not achieve a satisfactory standard on the English Placement Test will be enrolled in a special five-day-a-week class for three hours credit.
>
> (2) It shall be the duty of each teacher to call to students' attention errors in fundamental English (misspellings, poor grammar, faulty punctuation) and failure to adhere to the term paper standards outlined in the official Hanover *Guide to the Writing of Research Papers.* Penalties may be invoked at the discretion of the individual instructor.
>
> (3) A satisfactory grade on an English Competence Test shall be required for graduation. It shall be a national standardized test approved by the faculty. The faculty shall also have the power to approve the passing grade recommended by the English department. This examination will stress spelling, vocabulary, reading comprehension, and clear, correct expression. All students shall be given this examination at the end of their sophomore year. Those who fail must repeat it annually until they pass. This provision becomes effective with the incoming class of September, 1952.*

As college faculties become more aware of the problem and, in turn, more embarrassed by it, it is interesting to note a slackening of their tendency to place the whole blame on the English department and their increasing willingness to assume the responsibility.

It is apparent that increasing pressure from the professions, business, and industry will force a fairly rapid solution to the whole problem. The question remains as to what course of action will most speedily achieve the desired results. The policy adopted by Hanover College may provide one solution.

JOHN F. MCKENZIE
Assistant to the Dean of the Graduate School

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* From p. 147, *School and Society,* March 7, 1953. We are indebted to the whole article, "A Small College Declares War on Bonehead Grammar," by Leland Miles of Hanover College.

Pastoral Counseling Service

PAUL E. JOHNSON, *Professor of Psychology of Religion, Chairman, Pastoral Counseling Service*

The Pastoral Counseling Service was opened at Boston University School of Theology, January 2, 1952, to serve the University and the community. During the first year, 253 persons have come for a total of 919 interviews. Of these persons, 77 were students of Boston University and 176 were non-university persons. The largest number (84) were self-referred; others were referred by the clergy (72), University personnel and students (54), friends or relatives (19), social agencies (15), and staff of the Pastoral Counseling Service (9).

The staff consists of eight pastoral counselors, four of whom are members of the faculty, and four advanced doctoral candidates in psychology of religion; as well as a consulting psychiatrist, a clinical psychologist, a social worker, and the administrative co-ordinator. The suite of rooms for the Service is located on the third floor of the School of Theology Building, 745 Commonwealth Avenue.

Among the historic ministries of the Christian church, none has been more significant than pastoral counseling. Spiritual counsel has been sought in the confessional of some churches, and in pastoral conversations among other churches. In recent times the insights of psychology and psychiatry have been sought by the pastor in his counseling work. Boston University has pioneered in a doctoral program where the knowledge from these related fields in mental health has been joined together in the preparation of qualified students to become pastoral counselors, chaplains in hospitals and correctional institutions, or teachers of pastoral care in theological schools.

Pastoral counseling is available without fee (though voluntary contributions are accepted) to persons who have personal problems they feel unable to resolve alone, or who confront difficult human relations in the family or community. Such persons may have lost the sense of life's meaning; yet not content to yield to ultimate despair, they seek the help of a pastor who represents God and the sympathy of religious fellowship, to work through difficulties by deeper understanding and spiritual growth in the direction of their truest aspirations.

For what situations is pastoral counseling especially indicated? Among the many too numerous to mention, we note situations of guilt needing repentance, forgiveness, and redirection of life; anxiety and the need for courageous faith to cope with difficulties; discouragement and the need for responsive relationships with persons who understand and accept one faithfully; grief and the need to work through separation or loss in a larger religious perspective; frustration or hostility needing religious love and realistic levels of aspiration; a sense of inferiority or rejection with need for growing confidence through supportive relationships and dynamic goal-seeking activities.

A five year grant from The Danielsen Fund has made it possible to establish this Pastoral Counseling Service.

Student Research

History

The subject of Robert V. Bruce's doctoral dissertation in History, "Lincoln and the Tools of War," was determined by the unconventional course of his formal education. In 1943, after more than two years as an engineering student at M.I.T., he was called with the Enlisted Reserve Corps to active military service. Since his duty included not only service with the combat engineers in the Philippines and Japan but also four terms of engineering study at the University of New Hampshire, he was able to leave the army with a B.S. in Mechanical Engineering from the University of New Hampshire. But in the course of Pacific wanderings, his postwar goal underwent a sea change; and so in 1947 he received an A.M. in History from Boston University Graduate School. During the next four years, he taught at Bridgeport University and the Lawrence Academy at Groton, and in 1951 he resumed full time study at Boston University as a Ph.D. candidate.

Called upon in Professor Kenneth Bernard's Civil War seminar to investigate some phase of the Civil War or of the career of Abraham Lincoln, Mr. Bruce considered, at Professor Bernard's prompting, the question of Abraham Lincoln's relation to Civil War technology, if any, and immediately found the outcroppings of a most interesting historical lode. On the printed testimony of Lincoln's private secretaries, his Secretary of the Navy, and the Civil War Chief of Naval Ordnance, Lincoln spent a great deal of time examining and testing new weapons. Yet of all the great biographers and interpreters of Lincoln, only Carl Sandburg had given any attention to the ordnance activities of Lincoln, and his treatment was short and scrappy. When the time came for Mr. Bruce to choose the subject of his doctoral dissertation, it was logical that he should write on "Lincoln and the Tools of War" and that Professor Bernard should be his First Reader.

Why had previous writers done nothing with the subject? And what reasons could there be for supposing any further material to exist? In the first place, the fields of history and engineering have seldom joined. Historians have hesitated to grapple with technical matters; engineers have known little and cared little about historical methods. Secondly, only recently has much new material come to light. Lincoln's papers were not opened to students until 1947, and they contain nearly forty-two thousand leaves of manuscript without a subject index. The mountains of material at the National Archives have been readily available for ten or fifteen years; but they are measured in thousands of cubic feet.

Research in the National Archives and the Library of Congress, as well as in other libraries and manuscript depositories, thus brought to light much material on Lincoln not previously known to historians and biographers. Mr. Bruce's task was lightened by access to the card index of Lincoln writings unearthed in the National Archives for the forthcoming *Collected Works*, but he himself has come across a score or more of Lincoln letters and endorsements which were not found by searchers for the *Collected Works* and which at this late date must consequently be assigned to the inevitable supplement. More than once, he has untied red tape, now faded to pink ribbon, which was last knotted about a packet of letters some ninety years ago, and has pulled out a long-forgotten letter in the handwriting of Abraham Lincoln, dis-

cussing a machine gun, or a flame thrower, or an explosive bullet. Some striking episodes have emerged. The first machine gun ever used in battle was, it turns out, ordered on the responsibility of President Lincoln after extended examinations and negotiations by him. A scrap of paper left by accident in 1862 inside a register of letters has revealed that the President's life was once endangered by the premature bursting of an experimental rocket, although the authorities involved evidently suppressed the story at the time with a thoroughness that has endured until now.

Startling revelations are not, however, the object or the probable result of Mr. Bruce's study. Rather, it will illuminate further the character and methods of Abraham Lincoln; it will furnish context and circumstance for a number of Lincoln writings and anecdotes hitherto known only as isolated fragments; and, out of necessity as background, the study will also constitute a much more extensive treatment than has been hitherto available of an important but strangely neglected phase of Civil War history—the factors which determined what weapons were used by the Union armies.

Impressions of Higher Education in France

T. Noel Stern, *Associate Professor of Government**

Napoleonic Pattern?

The most striking difference between the university systems of France and the United States arises from the centralizing influence of Paris, at times given the disparaging label of "Napoleonism."

The Ministry of Education is powerful in its control of purse-strings. At Rennes, I noticed that a program of building modernization was made possible by the close contact which one of the deans had with Paris officials. At the University of Strasbourg, the professors were free to confess that many owed their appointments and promotions to the policy of the central government, which was bending every effort to educate the Alsatian population into 100 per cent Frenchmen. Consequently the government staffed Strasbourg with a higher ratio of professors to students than is usual in France.

Not only is the Ministry a power, but so are the professors in the University of Paris. Many of the provincial faculty members are working for degrees under Paris professors or are graduates of Paris. Other provincial professors seek promotion to the academic pinnacle at the national capital. Consequently, spheres of influence are established in many disciplines by the Paris faculty over their colleagues.

However, there is no dictation at all by the University of Paris or the Ministry of Education as to course content or teaching techniques to be employed by individual professors. Nor is there control of professors by politics in the usual sense of the word. At the University of Rennes, one of the professors with extremist political views got into a verbal and physical scuffle with a group of veterans returned from Indo-China. After this incident there were rumors of an effort by the Ministry of Education to undermine the professor's position; but his colleagues at Rennes

* During the year 1952, Dr. Stern was a Fulbright Lecturer in France, at the Universities of Rennes and Strasbourg, and during the summer was Director of the American Foundation in Paris. Dr. Stern's article appears here in abridged form.

came to his support and protected him, although they almost unanimously rejected his political views.

Thus the charge of "Napoleonism" seems to me to be slightly overdone. Although the over-all structure of the university system may follow Bonaparte's model, the individualism of the French professor has by no means been suppressed. In fact, one discovers more diversity of view among French faculty members than among American. Yet there seems to be less interpersonal strain in France than in the United States as the result of ideological difference.

Rectors and Personnel of Academies

Another evidence of centralization in France is found in the position of the rectors. The French rector is much more of an administrator than the usual American university president. He has little responsibility for public relations and none at all for money raising. The French rector is the head not only of the *facultés* of higher education but also of all the schools within his academy. These include the professional, normal, trade, secondary, and primary institutions in the area.

At Paris, the Rector has jurisdiction over eight *départments*. At Rennes, the jurisdiction of the Rector includes the ancient provinces of Brittany and Maine, and a fraction of Normandy. The Strasbourg Rector covers all of the Alsace and the German dialect area of Lorraine.

Thus an American professor visiting in France may find that his children in primary school are taught by *instituteurs* who report to the same rector as his colleagues at the *faculté*. Moreover he finds that *lycée* teachers are called professors in France; and that the line between professors in secondary and "tertiary" education is much less sharply drawn than in America. Both are colleagues within the same "university." Many men with secondary school rank teach part or full time in faculties of higher education. Further, professors in the faculties supervise final examinations given for graduation from the *lycées*.

In terms of administration, however, there is a sharp distinction between the primary and secondary schools on the one hand, and the *facultés* on the other hand. The *facultés* have much more autonomy and freedom of decision than do the other schools. While the rector must approve personnel changes and major decisions of the faculties, most of his relationship with the university is *pro forma*.

Deans and Faculté Administration

Although there are notable exceptions, it is usually said that rectors are selected for their administrative ability rather than for their intellectual power. Faculty deans, however, are held in high respect by their colleagues, who elect them for a limited term of years.

The disinterest of French deans in administrative detail provides something of a shock to American university people. An example from my own experience is in point. Because of the housing shortage, I was forced to spend more than an hour travelling to the university. I came to class on three successive Thursdays only to be told that classes were suspended for the day. Of course the students and the other professors were equally unaware of the break in schedule until the last minute.

There are several reasons for such loose administration. One is that the faculties prefer it that way. Deans and other professors are more interested in their individual research projects than in the development of administrative routine. Moreover, the faculties are

badly handicapped by a lack of stenographic and clerical assistance.

Competition for University Posts

Another characteristic of the French system is the stiff competition faced by intellectuals in obtaining teaching posts in higher education. Salaries in the *facultés* range from $2750 per year for a beginning instructor to a maximum of $4800 for a *professeur titulaire* (occupying a chair) in Paris. Although these incomes are not high by American standards, they are attractive in terms of other opportunities for trained people in government service in France.

The causes for the difficulty in obtaining posts are closely related. Among them are the high respect given to professors, and the difficult competitive examinations for entrance into the teaching profession. This is caused in part by the lingering tradition that education is not for everybody. Only the best should be admitted as students and teachers at the top. Consequently there are very few universities and professorships in France.

Moreover, there is no exact French counterpart to the American undergraduate program. The nearest thing is the program leading to the *licence*. But this really begins at the American junior year and continues for three years to the American Master's level.

UNESCO statistics indicate that there are only seventeen national universities in France, with a professorial staff of 3,000 and an enrollment of less than 200,000 students in the *facultés*. The traditional *facultés* comprise letters, law, medicine, science, and pharmacy. They also include the Catholic and Protestant theological faculties at Strasbourg. However, statistics given by UNESCO do not cover the four private Catholic universities, which follow standards set by the national government. The statistics also exclude engineering and normal schools.

Although information on higher education in the United States is not strictly comparable, there appear to be more teaching opportunities in America at the college level. In the disciplines cited above (with the exception of theology), there are ten times as many college students in the United States as in France. Yet the total American population is not four times as large as the French.

University Degrees

Less than half of the students in the final year of the *lycée* win their baccalaureate, which qualifies them for entrance in higher education.

When I was in Paris, I talked to the official of the French Ministry of Education in charge of international exchange of university credits. He told me that American university bachelors degrees were almost always accredited as equivalent to a *lycée* baccalaureate. The Ministry official freely admitted, however, that this was not fair to American holders of an A.B., since this degree really represented two years beyond the *lycée* diploma.

This meant that an American college graduate ordinarily had to do three years of graduate work to obtain the *licence,* which is really at the same level as a one-year Master's degree in America. But the French official admitted that there was a little flexibility in the rule about exchange of credits. In a few rare cases, when the American applicant held an A.B. from one of the best American colleges, the Ministry would grant him the equivalent of a French *licence.*

Beyond the *licence* is the Doctorate of the University. In effect its value is similar to the award of a second one-year Master's degree, although the win-

ner obtains the title of doctor. Or perhaps the Doctorate of the University could be best compared with the Master's degree in those American universities which require two years of study with a thesis for the M.A.

A higher doctor's degree is obtained from the Faculties of Law and Political Science. Candidates receive the *Doctorat en Droit* with two years study beyond the *licence*. They must also write a thesis. Thus the general requirements for the degree are at about the level of the American Ph.D. My impression was, however, that the French Doctor of Laws furnished a narrower and less rigorous training than the American Ph.D.

While the French law degree qualifies the recipient to practice or to begin teaching at a school of law, the "union card" to teach as permanent member of the faculty comes from the *agrégation*, which is much more difficult. This is a competitive examination given by a "jury" in Paris. Last year only nine persons obtained the *agrégation* in law for all of France and its colonies.

In medicine as well as law, the *agrégation* is considered a higher title than the doctor's degree and qualifies one to teach in *éducation supérieure*. In science and letters, however, the *agrégation* is lower than the doctorate and is usually won as a step on the way to the doctor's degree. The *agrégation* in science and letters is used as a qualification for teaching in the *lycées*. Usually less than one-tenth of the candidates are "received" or pass at these examinations.

In the *Faculté des Lettres* an *agrégation* will permit one to teach as an *assistant* and sometimes as a *maître de conférence*. But to become a *professeur titulaire*, a doctor's degree is necessary. To earn this degree the candidate must write two dissertations, each of which is more elaborate than the average American doctoral thesis in the humanities or social science. Thus most French graduate candidates do not obtain the *Doctorat ès Lettres* until they are in their forties. Many spend ten years or more on their first thesis and a shorter period of time on their complementary thesis.

The University and Research

While research is an essential characteristic of a university, this is not to say that every member of the faculty is expected to be active in investigation. Only those who have an aptitude for and ability in research should be so engaged; the native differences among individuals should be respected. There is a place for those who only teach, but such persons to feel at home should have an inquiring mind, kept critically abreast of the advances in their fields, and should influence their students to search for the truth with the same critical attitude. The university would do well, however, to maintain a predominance of faculty members active in research, so as to carry out one of its essential functions, that of investigation. On the reasonable assumption that ability in research is no contradiction of ability to teach, the dual role of the university is thus carried out in balance.

—Dean N. Paul Hudson

The Ohio State University *Graduate School Record*, January, 1953

Record of Research—VI

The following list of books and articles published recently by members of the University staff or by students was compiled partly from information made available in the offices of the President of the University and of the Dean of the Graduate School, and partly from the *Boston Medical Quarterly*, a publication of the Boston University School of Medicine and the Massachusetts Memorial Hospitals.

Biology

MAYNARD, FREDERICK W., BATTIT, GEORGE E., LUTZ, BRENTON R., PATT, DONALD I., and FULTON, GEORGE P. "The Pattern and Innervation of Blood Vessels in Normal, Irradiated, and Tumor Bearing Cheek Pouches of the Hamster," [Abstract of Demonstration], *Anatomical Record*, 112 (1952), 457-8.

OSBORN, DALE J. "Age Classes, Reproductions and Sex Ratio of Wyoming Beaver," *Journal of Mammalogy*, 34 (1953), 27-44.

PATT, DONALD I., HANDLER, ALFRED H., and LUTZ, BRENTON R. "Heterologous Tumor Growth in the Cheek Pouch of the Hamster," *Cancer Research*, 12 (1952), 287.

Chemistry

BERGIN, MARTHA J., and HEYN, ARNO H. A. "Method of Adding Sample to Closed Systems," *Analytical Chemistry*, 24 (1952), 1383.

COULTER, LOWELL V., and CANDELA, GEORGE A. "A Preliminary Report on the Adsorption of Water Vapor by Silver Iodide," *Zeitschrift für Elektrochemie*, 56 (1952), 449-52.

LICHTIN, NORMAN N., and LEFTIN, HARRY P. "The Hammett Sigma Value for m-Phenyl," *Journal of the American Chemical Society*, 74 (1952), 4207.

LITCHIN, NORMAN N., WESTON, RALPH E., JR., and WHITE, JUNE D. "The State of Anthracene, *sym*-Trinitrobenzene and their 1:1 Complex in Liquid Sulfur Dioxide Solution," *Journal of the American Chemical Society*, 74 (1952), 4715-6.

Education

EAMES, THOMAS H. "Eye and Other Handicaps: Their Relation to Performance on a Visual Motor Gestalt Test," *American Journal of Ophthalmology*, 36 (1953), 112-4.

GARRY, RALPH J. "Sociodrama in a High-School Adjustment Class," *School Review*, 61 (1953), 151-7.

KVARACEUS, WILLIAM C. "What the Elmtowners Think of the Elmtown Study," *School Review*, 60 (1952), 352-7.

MAKECHNIE, GEORGE. "Carl L. Schrader — Pioneer Educator," *Journal of the American Association for Health — Physical Education — Recreation*, 23 (December, 1952), 21.

WILSON, GUY M. "Psychological Basis for Motivation," *Education Administration and Supervision*, 38 (1952), 350-8.

General Education

BUTLER, JUDSON R. "The General Education Movement," *College and University Bulletin* (Association for Higher Education of the National Education Association), 5 (February 1, 1953), 1.

History

FIORE, JORDAN B. "Governor Bernard for an American Nobility," *Boston Public Library Quarterly*, July, 1952, 125-38.

Human Relations

WHITTEMORE, IRVING C. "The Manpower Symposium at the 1952 Annual APA Meeting," *American Psychologist,* 8 (1953), 119-22.

Medicine

GOLDENBERG, I. S., and LEMON, HENRY M. "Evaluation of Cancer Diagnosis at a Teaching Metropolitan Hospital 1944-1950," *Surgery,* 32: 835-45, 1952.

FINCH, STUART C. "Vitamin B_{12} in Medicine," *M. Clin. North America,* 36: 1223-37, 1952.

Obstetrics and Gynecology

KRUMBHAAR, GEORGE D. "Leukorrhea in General Practice: Its Diagnosis and Treatment," *M. Clin. North America,* 36: 1459-71, 1952.

Orthopedic and Fracture Surgery

BRADFORD, CHARLES H. "Doctors Afield: Leonard Wood," *New Eng. J. Med.,* 247: 526-8, 1952.

HOWARD, LOUIS G. "Neck and Shoulder Pain Syndromes," *M. Clin, North America,* 36: 1289-1307, 1952.

KUHNS, JOHN G., POTTS, T. A., ELLISTON, W. A., and HORMELL, ROBERT S. "Replacement of the Femoral Head in Severe Osteoarthritis of the Hip," *New England J. Med.,* 247: 787-90, 1952.

TENNEY, BENJAMIN, JR., and ABRAMS, ARCHIE A. "Induction of Labor," *M. Clin. North America,* 36: 1473-84, 1952.

Pathology

BLEISCH, V. R., and ROBBINS, STANLEY L. "Sarcoid-like Granulomata of the Pituitary Gland: a Cause of Pituitary Insufficiency," *Arch. Int. Med.,* 89:877-892, 1952.

KIBRICK, S., BELDING, DAVID L., and MERRILL, B. "A Sensitive Gelatin Agglutination Test for Detecting Antisperm Agglutinins," *Proc. Soc. Exper. Biol. & Med.,* 80: 715-7, 1952.

ROBBINS, STANLEY L., and PARKER, F. "Studies on the Mechanism of the Spermatic Release of the Male North American Frog (Rana Pipiens). Part 2: The role of the Pituitary, Adrenals and Testes," *J. Clin. Endocrinol.,* 12:744-750, 1952.

Pharmacology

MOSEY, LOIS, and KAPLAN, A. "Respiratory Effects of Potent Hypotensive Derivatives of Veratrum," *J. Pharmacol. & Exper. Therapeut.,* 104:67-75, 1952.

STEARNS, NORMAN S., and ELLIS, L. B. "Acute Effects of Intravenous Administration of a Preparation of Veratrum Viride in Patients with severe Forms of Hypertensive Disease," *New England J. Med.,* 246:397-400, 1952.

SWISS, EDWARD D. "The Emetic Properties of Veratrum Derivatives," *J. Pharmacol. & Exper. Therapeut.,* 104:76-86, 1952.

SWISS, EDWARD D., and MAISON, GEORGE L. "The Site of Cardiovascular Action of Veratrum Derivatives," *J. Pharmacol. & Exper. Therapeut.,* 105:87-105, 1952.

Philosophy

BRIGHTMAN, EDGAR S. "Personalism and Education," [in Modern Greek] *Deltion tes Christianikes Enoseos Ekpaideutikon Leitourgon,* 6 (1953), 1-5.

———. "What should be the Relation of Morals to Law?" *Journal of Public Law* [Emory University Law School], 1 (1952), 271-4.

[*Continued on next page*]

Research

Devoted men in every branch of science are dedicating their lives to research —increasing our knowledge of the world and contributing to our improvement and progress.

The importance of this research is appreciated by all of us, but research must not be confined to the scientist alone.

Dr. Charles F. Kettering has defined research as "simply finding out what you are going to do when you cannot keep on doing what you are doing now."

That definition places all of us in the position of research engineers because no thinking person would like to continue doing for the rest of his life exactly what he is doing now.

Today there is great opportunity and necessity for broad research in order to determine how people in underprivileged areas can be helped to improve on what they are doing now and receive more benefit from past and continuing research in all fields of endeavor.

Let us as individuals undertake a personal research program to determine what changes we can make which will add to our happiness and well-being, as well as to the happiness and well-being of our fellow man.

— Thos. J. Watson, in *Think* Magazine, February, 1953. Reprinted by permission.

Record of Research — VI [*Continued*]

Physics

Macdonald, Duncan E. "Image Motion in Air Photography," *Photogrammetric Engineering,* 18 (1952), 791-817.

———. "A Statistical Approach to the Evaluation of Photographic Quality," *ibid.,* 472-80.

Preventive Medicine

Fiumara, Nicholas J., Fleming, W. J., Downing, John G., and Good, F. L. "The Incidence of Prenatal Syphilis at the Boston City Hospital," *New England J. Med.,* 247:48, 1952.

Psychiatry and Neurology

Kane, Charles A. "The Diagnosis and Treatment of Polyneuritic Syndromes, 'Multiple Peripheral Neuritis'," *M. Clin. North America,* 36: 1357-72, 1952.

Kaufman, I. Charles, and Isenberg, Sidney. "Antiepileptic Drugs," *M. Clin. North America,* 36: 1381-92, 1952.

Standish, Christopher T., Gurri, Jose, Semrad, E. V., and Day, M. "Some Difficulties in Group Psychotherapy with Psychotics," *Am. J. Psychiatry,* 109: 283-6, 1952.

Psychology

Horowitz, Milton W., and Perlmutter, Howard V. "The Concept of the Social Group," *Journal of Social Psychology,* 37 (1953), 69-95.

Perlmutter, Howard V., and de Montmollin, G. "Group Learning of Nonsense Syllables," *Journal of Abnormal and Social Psychology,* 47 (1952), 762-9.

Public Relations

Maccoby, Nathan, and Hymovitch, Bernard. "The Effects of Rank on Human Relations," *Air University Quarterly Review,* 5 (Winter 1952-53), 40-48.

White, David M. "Objectivity in a Free Press," *Confluence,* 2 (1953), 87-98.

Surgery

GAENSLER, EDWARD A., and CUGELL, D. W. "Bronchospirometry. IV. Ambient-air and Oxygen-recording Bronchospirometry," *J. Lab. & Clin. Med.*, 40: 410-30, 1952.

GAENSLER, EDWARD A., and CUGELL, D. W. "Bronchospirometry. V. Differential Residual Volume Determination," *J. Lab. & Clin, Med.*, 40: 558-78, 1952.

GAENSLER, EDWARD A., and WATSON, T. R., JR. "Bronchospirometry. III. Complications, Contraindications, Technique, and Interpretation," *J. Lab. & Clin. Med.*, 40: 223-51, 1952.

LITWAK, R. S., GADBOYS, H. L., SCOTT, G. B., and FERRARA, J. F. "Surgical Approach for Stenotic Lesions of the Semilunar Valves by Excision and Cusp Replacement under Direct Vision," *J. Thoracic Surg.*, 24:165-189, 1952.

MADOFF, IRVING M., GAENSLER, EDWARD A., and STRIEDER, JOHN W. "Congenital Absence of the Right Pulmonary Artery," *New England J. Med.*, 247:149, 1952.

PATTON, W. E., WATSON, T. R., JR., and GAENSLER, EDWARD A. "Pulmonary Function before and at Intervals after Surgical Decortication of the Lung," *Surg., Gynec. & Obst.*, 95: 477-96, 1952.

THOMPSON, JESSE E., and VANE, J. R. "The Effect of Venous Occlusion on Arterial Blood Flow in the Extremities," *Surgery*, 31:55-61, 1952.

Departmental Registration in Graduate School*

Department or Division	Second Semester, 1951-1952			Second Semester, 1952-1953			
	A.M.	Ph.D.	Total	A.M.	Ph.D.	Total	
Biology	25	21	46	22	17	39	— 7
Chemistry	15	22	37	9	21	30	— 7
Economics	28	10	38	28	9	37	— 1
Education	23	0	23	17	0	17	— 6
English	63	39	102	55	30	85	—17
Fine Arts	9	0	9	4	0	4	— 5
Geography	7	0	7	8	0	8	+ 1
Geology	11	3	14	12	2	14	0
German	4	1	5	1	4	5	0
Government	15	5	20	26	7	33	+13
History	51	15	66	36	10	46	—20
History and Literature	1	0	1	2	0	2	+ 1
Latin American Studies	8	0	8	5	0	5	— 3
Mathematics	15	9	24	13	6	19	— 5
Music	23	7	30	17	4	21	— 9
Philosophy	12	17	29	11	15	26	— 3
Physics	33	19	52	31	14	45	— 7
Psychology	42	68	110	35	61	96	—14
Romance Languages	12	9	21	13	12	25	+ 4
Sociology	23	7	30	16	8	24	— 6
Medical Sciences	14	14	28	17	14	31	+ 3
Theological Studies	3	33	36	1	49	50	+14
	437	299	736	379	283	662	—74
Non-resident	117	230	347	97	225	322	—25
	554	529	1083	476	508	984	—99

* Similar statistics for the First Semesters of 1951-52 and 1952-53 appeared in the JOURNAL for April, p. 172.

Book Review: *An Essay on Method*. By C. Hillis Kaiser

Brunswick, New Jersey: Rutgers University Press. 1952. Pp. 168. $3.25

From time to time, the Journal *reviews books by writers outside the University.*

An Essay on Method is a well-written "comparative analysis of the methods of art, science, philosophy, and religion, in order to determine the kinds of problems which can be solved by the methods of each, and the educational emphasis each should receive in our colleges and universities." The presuppositions of Dr. Kaiser's own method of determining method become apparent in his aim to use a "neutral" language, to allow no "disputed territorities" between disciplines even though there is "literally no universal agreement concerning the usage of such words as 'science' and 'art.' Definitions will be 'real' in the sense that they conform, as best they can, to the actual facts of common usage."

Certainly such methodology makes for geometric effects. Draw a square, and at the upper right hand corner write "science." "Science" will be related to "art" on the upper left hand corner as a form of "play" and as a "discipline of immediacy." For both are activities done for the "peculiar joy of discovery," and in this they are the opposites respectively of "technology" and "craft." Both appeal to immediate experience defined as "direct apprehension in sensation or imagination." But science involves "judgment," "that mental act which corresponds to, or is expressed by, a statement"; therefore it will be related to "philosophy" on the lower right hand corner. Philosophy in turn will be connected to "religion" on the lower left hand corner. Both are "serious," for they are concerned with the "state of one's soul." The two are also "transcendental." Unlike science, whose generalizations are drawn from objects of thought presented immediately in sensation or imagination, philosophy and religion deal with a priori concepts seen intuitively after vigorous and prolonged meditation. Religion, like poetry, gives "knowledge by acquaintance," that is, without "judgment"; but that knowledge, like the knowledge of philosophy, is of an a priori content, "transcendental," Otto's "wholly other." Thus religion is a practical activity one "does" for the sake of an ultimate perfection of the self. The methods it uses to awaken and sustain the desire for perfection are "rhetorical" rather than logical.

Finally, if a line be drawn from "religion" to "art"—neither discipline eventuating in "judgment"—the square is complete. Within the figure there are no links between the diagonally opposite art and philosophy nor between science and religion. Such a diagram manifests that "passion for distinctions" which, according to Dr. Kaiser, must be rehabilitated in education:

> As long as we attempt to make one discipline do the work of another, as long as we are complacently ignorant of where one leaves off and another begins, as long as we believe that one shades off imperceptibly into another or attempt to reduce them all to one primitive discipline, so long will there be confusion and intolerance and frustration in our intellectual and cultural life.

Now education is a distinct discipline using the results of objective methodology, and it is "concerned with the provision and evaluation of the means by which human individuals can perfect themselves as individuals." Its ideal is the "flexible mind, unwarped by professionalism and specialization, taught to abstract from each discipline that peculiar contribution which it makes to human perfection." Such education should dare to prescribe a curriculum and insist upon a genuine intensity of experience within each discipline. "One must not merely read science; one must *do* it. One must not merely enjoy art; one must be an artist." Religion courses should "make" students religious, and philosophy courses should encourage students to take a position.

Discrimination and intensity describe the method, as well as the temper, of Dr. Kaiser's formulations. He arrives at his "method" through conclusions concerning the nature of art, science, philosophy, and religion which are highly debatable. One criticism he seeks to forestall early in the book: "We must attempt to define our primitive terms without assuming that instances of pure art or pure science or pure philosophy ever do occur." To keep this in mind should have served at least to mitigate some of the author's more drastic alternatives: "There is no point trying to mix education and training as is now done in the majority of colleges and universities. The result is usually *neither* education nor training." To take another example: "By reason of the opposition between our disciplines, one cannot do philosophy and art at the same time nor science and religion." This is to carry rigor of method beyond any warrant to be found in experience. What "nature" seems to have united Dr. Kaiser insists not merely on drawing but holding asunder.

At other times Dr. Kaiser may be reproached for unequal exercise of rigor. To make science and art forms of play because each seeks a "characteristic pleasure" is to distinguish insufficiently between the pleasure that goes with knowledge involving judgment and the pleasure attending "knowledge by acquaintance" without judgment. In this respect Professor E. Jordan in his *Essays on Criticism* comes closer to the truth when he places art and science at opposite poles.

As a matter of fact, however, the four disciplines could be associated on the level of intrinsic value. A persistent ideal represents the scientist and the philosopher as devoted to truth "for its own sake," the artist to his art "for art's sake," the religious man to his God, and not merely for salvation's sake. The distinction between the "intrinsic" and the "instrumental" seems useful for methodology only if treated as an emphasis rather than an absolute.

A final question concerns the role of philosophy which Dr. Kaiser explicitly confines to its own compartment beside the other disciplines. Philosophy, he insists, should learn to get "outside itself" and see itself from the outside. But, one may ask, what do you call philosophy when it is literally "beside" itself? What is the discipline that looks at art from the "outside," at science, religion, and even philosophy from "outside"? Virtue, the ideal of education, says Dr. Kaiser, "is not to be found within any one discipline but only in a proper blending of them all. . . ." Once more, what is the discipline which helps men to discern what blending is likely to be "proper"? Education provides and evaluates the means, but what discipline criticizes the ends? But on occasion Dr. Kaiser would seem to indicate a change of mind, as when religion's "depraved or vague conceptions of human perfection and its metaphysical conditions and foundation" are said to require philosophy "to clarify and refine such conceptions and indicate explicitly their relevance to the attainment of virtue."

One may conclude that a discipline is what it "does" if the meaning of "does" is determined only by "reason in its most exalted mood," that is, reason at the maximum of comprehensiveness and coherence and in the clearest intuition of its "ultimate presupposition" that the "real is the whole." For the teacher this means a dynamic equilibrium of the "special" in his subject and of its relatedness. If disciplines do not in fact overlap and even interflow, one may question the very possibility of their integration by a "flexible" mind. Oneness, to be achieved by the truly educated man, must be native to the stuff of knowledge if it is ever to be woven into a living whole by the process of teaching and assimilation.

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